**Session 8- Perimeter and Area**

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| Time | Agenda | Vocab | Resources |
| 4:00 | • Welcome    • Go over homework & questions |  |  |
| 4:15 | **Area and Perimeter**   * Have the participants define area and perimeter. * Come to common definitions as a class. | Area Perimeter |  |
| 4:30 | **Perimeter**   * Do “Finding and Measuring Perimeters” activity from VDW page 377 (7th edition). Also found in Investigations in Number , Data, and Space grade 3 * Beckmann Activity – Class Activity 12T and 12U pages 299 -300. * Use the above activities to lead a discussion about perimeter – How do we measure perimeter? – What are some common misconceptions? |  |  |
| 5:00 | **How are Perimeter and Area Related?**   * Beckmann Activity – Class Activity 12V and 12W. * VDW page 380(VDW 6th edition pg 386: Activity 20.13 & 20.14 ) Fixed Perimeters,Activity-19.12 and Fixed Area-19.13 * After the activities, use the information in the books and lead a discussion on what they observed, what conjectures were made and what conclusions can be drawn. |  |  |
| 5:45 | **BREAK** |  |  |
| 6:00 | **Area**   * Activity 19.10- Fill and Compare VDW pg 379 (VDW 6th ed. pg 385 activity 20.11) is a great starting activity to understand area. * Lead a discussion about squares being the most common unit of area measurement but any tile that conveniently fills up the plane region can be used. Even filling the shape with beans or pennies would help with the meaning of area. * Can different shapes have the same area? Class Activity 12B (Beckmann page 282) or VDW pg 377-378 Activity 19.8- Two-Piece Shapes (VDW 6th ed. pg 382 activity 20.8) are both good activities to help participants come to this understanding. Choose one. * Beckmann Hardbound page 507 gives you some problems for participants to practice finding area. Use some of the problems on page 509 for those who need more of a challenge. Don’t use problem 2 – it is part of their homework. |  |  |
| 6:45 | **Formulas for triangles, parallelograms and trapezoids**  Have the participants derive the formula for the area of Triangles, Parallelograms & Trapezoids.  Check out the following website to help with an explanation –  <http://illuminations.nctm.org/LessonDetail.aspx?ID=L580>  Triangles lesson 1  Parallelograms lesson 3  Trapezoids lesson 2  There is also some great information in Beckmann (hardbound) pages 510 – 530. You can use this information instead or with the illuminations lesson. |  |  |
| 7:45 | **Homework**: Beckmann Hardbound page 509 problem 2; page 544 7 a. and b.  **Reflection Journal:**  **Reading: Beckmann Hardcover pp 481-483 & 555-557**  **DIFFERENTIATED LESSON DUE NEXT WEEK!**  **HAVE PARTICIPANTS BRING A BOX NO LARGER THAN A SHOE BOX** |  |  |
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